	EΡ	A	U	nited States	Washin	nental Proto gton, DC 2 ssignn	0460			Work 3 3	Assignment N		dment Number:			
Contract Nur	mber			Contract Pe	riod 11/	13/200	9 To	09/19/2	2014	Title o	f Work Assign	ment/SF Site N	ame			
EP-W-10-	-002			Base		Option Pe	riod Nur	mber 3		Valu	ie of Wat	er to U.	S. Econ.			
Contractor							Specify	y Section and pa	ragraph d	of Contract SC	W		<del>_</del>			
INDUSTR	IAL	ECONOMIC	CS, INCO	ORPORATE	:D		Ρq.	5-8, <u>Ele</u>	етепі	าน 1						
Purpose:	2	Work Assig	ınment			Work Ass	gnment (	Close Out		Period of Performance						
	Γ	Work Assig	jnment Amend	lment		Incrementa	a Fundir	ġ								
Work Plan Apprevar											r 09/20/	<b>2</b> 012 ™ 3	1/18/2012			
		Filhis act			Work Aa	a.gament	(WA)	3-37 whic	th cont	linies pu	it does no'	duplicate	work			
Superfund Accounting and Appropriations Data X Non Superfund												Nan Superfure				
Note: To report additional accounting and appropriations date use EPA Form 1900 69A.  SFO  (Max 2)																
_	DCN Budget/FY Appropriation Budget Org/Code Program Element Object Class Amount Max 6) (Max 4) Code (Max 6) (Max 7) (Max 9) (Max 4)								nt (Dolars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)				
1													_			
2																
3											+					
4	$\dashv$		12.0	i.												
5	-			_   _							*	<u> </u>				
<u> </u>					Aut	horized Wo	rk Assi	gnment Ceilin	ig				10.70			
Contract Period 11/19/2 This Action.		т₀ 09/19		t/f ee:					L	OE:						
Total.					12.0	1 50 10	- F									
						rk Plan / Ci	ost Esti	mate Approva		LOE:						
Contractor WF					ost/Fee:		-									
Cumulative Ap	pproved	·		C	ost/fee:					LOE.						
Work Assignm	nerit Mar	nager Name	John Po	wers.					L	Branch/Ma			_			
										Phone Nur	mber 202-	564 5776				
1		(Signa	ture)		-	<del></del>	(Date	ý		FAX Numb	en 202-5	64-0500				
Project Officer	r Name	Cheryl	R. Brow	תי						Branch/Ma	il Code:					
										Phone Nur	mber: 202-	566-0940				
(Signature) (Date)										FAX Numb	oer:		<u> </u>			
Other Agency	y Officia-	Name								Branch/Ma	ii Code:					
										Phone Nur	mber:					
		(Signa	ture)			<del>-</del>	(Date	)		FAX Numb	per:					
Contracting O	ficia N	amo St.e	an Mar	iyan	•	91				Branch/Ma	iil Code:					
f	_	~\/)	1	X			GI	19/20	12[	Phone Nur	mber: 202	364-1987				
-		Signa	tone)				(Date	)		FAX Numb	per:					

#### Statement of Work

Title: Technical Support to Stimulate and Promote Innovation in Science-based

Approaches for Estimating the Value of Water to the U.S. Economy

Contractor: Industrial Economics, Inc.

Contract: EP-W-10-002

Work Assignment: 3-37

#### Period of Performance:

Phase 1: Date of issuance to November 18, 2011

— Phase 2: November 19, 2011 to November 18, 2012

September 20, 2012 to November 18, 2012

Level of Effort: Phase 1: 750 hours

Phase 2: 1,700 hours Total: 2,450 hours

Option Year 3 Hours 184.20

**WA COR:** John Powers

OW/WPS (4101M) Ph. (202) 564-5776 Fax (202) 564-0500 powers.john@epa.gov

Alt. WA COR: Joel Corona

OW/WPS (4101M) Ph. (202) 564-0006 Fax (202) 564-0500 corona.joel@epa.gov

#### Contract Level COR:

Cheryl R. Brown OP (1805T)

Ph. (202) 566-0940 Fax (202) 566-3001

#### BACKGROUND & PURPOSE

There currently is no organized, science-based narrative on the economic value of water to the U.S. economy. A qualitative review of the literature provides some insights on the importance of

water to certain sectors of the economy, such as tourism, farming and food production, fishing, manufacturing, infrastructure, housing and energy, but the information tends to be incomplete or lacking in strategic insight.

As a consequence, EPA and others are unable to systematically and comprehensively analyze the value of water to the U.S. economy, resulting in potentially inefficient resource protection and management decisions. This project is intended to stimulate and promote innovation to fill this information gap. Furthermore, when combined with EPA research on the value of water in the U.S. from *nonmarket* consumption (e.g., nonuse values, recreation, etc.), this project will serve as a catalyst for integrating market and nonmarket "pricing" information that is critical to support decision-making at multiple scales (e.g., EPA, state, regional, watershed, local).

The purpose of this project is, therefore, to stimulate and promote awareness and innovations resulting in the enhanced capacity of analysts and decision-makers to evaluate the economic value of water and the contribution it makes to the U.S. economy over time. Key questions to address include the following:

- Given projected trends in population growth and composition, trends toward urbanization, shortages in critical infrastructure investment, global warming, and other strategic drivers of change, how does the availability of clean water affect patterns of economic and regional development in the U.S.?
- How does clean water create competitive advantages for the U.S. in the 21<sup>st</sup> Century global economy? In what sectors of the U.S. economy are these competitive advantages most strategically significant to the nation as a whole? What are the implications on regional economic development?
- How robust are these projections to strategic choices made by other nations, and how could these choices affect relative (comparative) advantages between the U.S. and its trading partners?
- What strategic choices must the U.S. consider to maximize the sustainable economic value generated by its water supplies in the 21<sup>st</sup> Century?

The project will be managed to integrate, coordinate, and share knowledge developed in two areas. First, the contractor will engage stakeholders and external experts to begin a dialogue on the value of clean water to the U.S. economy through development of a comprehensive, highlevel and forward-looking narrative that informs current and future decision-makers, and engages the public, policy-makers, civic leaders, business leaders, water managers, and others in appreciating the contribution water makes to the nation's economic well-being. Second, EPA, with the support of the contractor, will conduct a technical analysis of the current economic and natural resource statistics, models, and methods available for valuing the contribution of water to the market economy, and identify innovations required to enhance its capacity to analyze the impacts of its regulations and policies on the U.S. economy.

The general workflow of the project is as follows:

#### Part I: Background Report

• Purpose: To provide a consistent set of background information that (1) provides a baseline understanding of the economic and natural resource statistics, methods and models available describing, and for conducting analysis of, the value of water to the U.S. economy, and (2) informs selection of strategic topics and experts for further inquiry in Part II of the project.

#### Part II: Expert Papers

• <u>Purpose</u>: To engage and provide technical assistance to experts on specific strategic topics identified in Part I to gain greater insight on current values of water to the U.S. economy, current analytic capabilities, and innovations required to enhance technical analysis capabilities.

#### Part III: Workshop

• <u>Purpose</u>: To present the findings from Parts I and II to a group of diverse stakeholders, engage the experts and stakeholders in a discussion about the findings and implications, and identify innovations required to enhance technical analysis capabilities.

#### Part IV: Synthesis Reports

• Purpose: To synthesize the findings of Parts I-IV into documents for non-technical and technical audiences. The synthesis for non-technical audiences shall focus on the findings on the value of water to the U.S. economy, whereas the synthesis for technical audiences shall focus on analytic issues, including innovations required to enhance EPA's capacity to integrate market and nonmarket "pricing" information critical to support decision-making at multiple scales (e.g., EPA, state, regional, watershed, local). One or both synthesis reports may be submitted for formal peer review.

Note that the duration of this project will extend into a new contract period of performance beginning November 19, 2011. The initial work assignment (Phase 1 of the project) will focus on Parts I and II, whereas the follow-up work assignment (Phase 2) will continue this work through completion of Part IV. A General Schedule of Deliverables is included below showing the anticipated work flow between the Phase 1 and Phase 2 work assignments. The products developed under Phase 1 are essential to completion of the work products developed under Phase 2 in the follow-up work assignment.

Note that EPA may consult with its Science Advisor Board (SAB) on this project. A task is included in this work assignment for the contractor to provide technical assistance to the WA

COR if required, and a column is included in the General Schedule of Deliverables describing the potential scope and timing of consultation.

Contractor personnel shall at all times identify themselves as contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

#### TASKS & DELIVERABLES

The WA COR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the WA COR's comments.

The contractor shall not duplicate work performed in the previous work assignment(s).

### Phase 1: Task 1 – Prepare Workplan and QAPP, and Administer the Work Assignment – COMPLETED

The contractor shall prepare a Workplan for Phase 1 and Phase 2 within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a staffing plan, and a detailed cost estimate by task. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the CO's comments, if required.

The contractor shall prepare a written Quality Assurance Project Plan (QAPP) and submit QA Reports with monthly progress reports and with the Final Report.

The contractor shall also identify how it will administer the work assignment.

#### Deliverables:

- 1A. Workplan due within 15 calendar days of receipt of the work assignment.
- 1B. Revised workplan due within 7 calendar days of receipt of comments from the Contracting Officer, if required.
- 1C. QAPP due within 15 calendar days of receipt of the work assignment.
- 1D. Revised QAPP due within 7 calendar days of receipt of comments from the **WA COR**, if required.
- 1E. Monthly QA Reports due with monthly progress reports and with the Final Report.

## Phase 1: Task 2 – Begin Background Report (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall write a background report that provides a consistent set of background information that (1) provides a baseline understanding of the economic and natural resource statistics, methods and models available describing, and for conducting analysis of, the value of water to the U.S. economy, and (2) informs selection of strategic topics and experts for further inquiry in Phase 2 of the project. To do this, the contractor shall review relevant literature, consult with experts, and analyze economic and natural resource statistics.

The report shall be written in four steps – Outline, Draft 1, Draft 2, and Final. The Outline and Draft 1 deliverables will be due under this work assignment, with specific due dates determined through technical direction. The Draft 2 and Final deliverables are addressed in Phase 2: Task 5 – Complete Background Report, described below.

#### Deliverables:

- 2A. Background Report Outline due date determined by technical direction, but expected in October 2011, as indicated in the General Schedule of Deliverables.
- 2B. Background Report Draft 1 due date determined by technical direction, but expected in November 2011, as indicated in the General Schedule of Deliverables.

### Phase 1: Task 3 – Begin Expert Papers (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall write approximately ten (10) expert-level papers on specific strategic topics identified in Phase 1: Task 2 to gain greater insight on current values of water to the U.S. economy, current analytic capabilities, and innovations required to enhance critical technical analysis capabilities.

The process for identifying the topics and experts shall be based on an objective and scientifically-based assessment of the deliverables and knowledge gained in Phase 1: Task 2. Specific sub-tasks for this task include (1) developing a Draft Topics List describing key focal areas for expert research and analysis; and (2) developing Draft Charge Questions to address in expert-level papers (may be general or specific to a topic). Additional requirements, including deliverable due dates, will be issued through technical direction.

#### Deliverables:

- 2A. Draft Topics List due date determined by technical direction, but expected in October 2011, as indicated in the General Schedule of Deliverables.
- 2B. Draft Charge Questions due date determined by technical direction, but expected in November 2011, as indicated in the General Schedule of Deliverables.

### Phase 1: Task 4 – Support for SAB Consultation (Contract SOW Ref. Pg. 5-8, Element 1): COMPLETED

The contractor shall provide the WA COR with technical support for consulting with EPA's Science Advisory Board on this project. Specific activities may include developing presentation materials and charge questions, participating in technical discussions, and taking notes. Travel (day-trip; no overnight) to Washington, DC may be required for one or two individuals. Specific deliverables and due dates will be determined through technical direction.

## Phase 2: Task 5 – Complete Background Report (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall complete the background report initiated in Phase 1: Task 2. Specific deliverables under this phase of the work assignment include Draft 2 and Final report, with specific due dates to be determined through technical direction. The Background Report may be submitted for peer review. As described in the General Schedule of Deliverables (below), it is expected that Draft 2 will be due in January 2012, and that the Final report will be due in May 2012.

#### Deliverables:

- 5A. Background Report Draft 2 due date determined by technical direction, but expected in January 2012, as indicated in the General Schedule of Deliverables
- 5B. Background Report Final due date determined by technical direction, but expected in May 2012, as indicated in the General Schedule of Deliverables.

## Phase 2: Task 6 – Complete Expert Papers (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall complete the expert papers initiated in Phase 1: Task 3 by researching, writing, and editing draft and final expert papers. The expert papers may be submitted for peer review. Specific deliverable due dates will also be determined through technical direction, but as described in the General Schedule of Deliverables, it is expected that the Draft Expert Papers will be due in March 2012, and Final Expert papers will be due in May 2012.

#### Deliverables:

- 6A. Draft Expert Papers due date determined by technical direction, but expected in March 2012, as indicated in the General Schedule of Deliverables.
- 6B. Final Expert Papers due date determined by technical direction, but expected in May 2012, as indicated in the General Schedule of Deliverables.

#### Phase 2: Task 7 – Workshop (Contract SOW Ref. Pg. 5-8, Element 1) (INCOMPLETE)

The contractor shall organize a workshop for approximately 100-250 attendees to engage experts and a diverse group of stakeholders in a discussion about the findings and implications of the Background Report and Expert Papers, and to identify innovations required to enhance technical analysis capabilities. The workshop shall be organized to provide a comprehensive, high-level and forward-looking narrative that informs current and future decision-makers, and engages the public, policy-makers, civic leaders, business leaders, water managers, and others in appreciating the contribution water makes to the nation's economic well-being.

The contractor shall contribute to the planning of the workshop and agenda, develop PowerPoint presentations, give presentations, participate in discussions, take notes, and write draft and final workshop summaries. The contractor may be required to make space arrangements. Travel (3 days, 2 nights for 1-2 individuals) to Washington, DC or another location (TBD) for the workshop will be required.

As described in the General Schedule of Deliverables, it is expected that the Workshop will take place in June-August 2012 with planning activities taking place in January-May 2012. Draft and final workshop summaries are expected to be due no later than September and October 2012, respectively. Specific deliverables and due dates will be determined through technical direction.

## Phase 2: Task 8 – Synthesis Reports (Contract SOW Ref. Pg. 5-8, Element 1) (INCOMPLETE)

The contractor shall synthesize the findings of Tasks 2-7 into two documents for non-technical and technical audiences. The synthesis for non-technical audiences shall focus on the findings on the value of water to the U.S. economy, whereas the synthesis for technical audiences shall focus on analytic issues, including innovations required to enhance EPA's capacity to integrate market and nonmarket "pricing" information critical to support decision-making at multiple scales (e.g., EPA, state, regional, watershed, local). One or both synthesis reports may be submitted for formal peer review.

The process for writing the synthesis reports shall be based on an objective and scientifically-based assessment of the deliverables produced under Tasks 2-7. Deliverables will include draft and final outlines, and draft and final reports for both syntheses. As described in the General Schedule of Deliverables (below), it is expected that the Draft Outlines will be due in May-June 2012, Final Outlines will be due in August 2012, Draft Reports will be due in September 2012, and Final Reports will be due in October 2012. Specific deliverables and due dates will be determined through technical direction.

#### Deliverables: (INCOMPLETE)

- 8A. Draft Outlines for Synthesis Reports due date determined by technical direction, but expected in May-June 2012, as indicated in the General Schedule of Deliverables.
- 8B. Final Outlines for Synthesis Reports due date determined by technical direction, but expected in August 2012, as indicated in the General Schedule of Deliverables.
- 8C. Draft Synthesis Reports due date determined by technical direction, but expected in September 2012, as indicated in the General Schedule of Deliverables.
- 8D. Draft Synthesis Reports due date determined by technical direction, but expected in September 2012, as indicated in the General Schedule of Deliverables.

## Phase 2: Task 9 – Support for SAB Consultation (Contract SOW Ref. Pg. 5-8, Element 1) (INCOMPLETE)

The contractor shall provide the WA COR with technical support for consulting with EPA's Science Advisory Board on this project. Specific activities may include developing presentation materials and charge questions, participating in technical discussions, and taking notes. Travel (day-trip; no overnight) to Washington, DC may be required for one or two individuals. Specific deliverables and due dates will be determined through technical direction.

General Schedule of Deliverables

	Part I Background Report	Part II Expert Papers	Part III Workshop	Part IV Synthesis Reports	enen gd 1. 1 sand - ja
PROJEC'.	TPIIASE 1 – this work o	assignment (through Nov 1	8, 2011)		
Sep '11				· -	12334 pages
Oct '11	Outline	Draft topics list		<del></del>	∫ yetti ix yefaz ka
Nov '11	Draft 1	Draft charge questions			repliques to a fine
PROJEC'	PHASE 2 follow-on	work assignment (beginnin	g Nov 19, 2011 through 1	Vov 18, 2012)	
Dec '11		Final topics list Final charge questions Define scope of expert papers			
Jan '12	Draft 2	Provide RA support			Many And Springer, Springer
Feb '12	İ	for experts			Later with the series and the series of the
Mar '12		Draft Papers	Workshop planning		
Apr '12	-			B.	
May '12	Final	Final		Draft Outlines	lmp " disepto, wiggt
Jun '12		i	…⊳		े प्रकार केंद्र वार्च
Jul '12			··≽ Workshop		
Aug '12				Final Outlines	
Sep '12			Draft workshop summary due	Draft Reports	
Oct '12			Final workshop summary due	Final Reports	* Essent & disease Final Colodos
Nov '12				***************************************	<ul> <li>Eventures and Uned Synthesis Reports</li> </ul>

Major Deliverables:

- Final Background Report (Phase I) May '12
- Final Expert Papers (Phase II) May '12
- Workshop (Phase III) Jun-Aug '12
- Final Workshop Summary (Phase III) Oct '12
- Final Synthesis Reports (Phase IV) Oct \*12
- Paramital careadiations with Mass. As rely as the distributed 162, Riagodian 182, weisting 182

EPA		ngton, DC 20460			Work Assignment Number 3-37					
/.	Work A	Assignment			Other Amendment Number:					
Contract Number	Contract Period ] ]	./19/2009 To	09/19/	2014	Title of Work Assignment/SF Site Name					
EP-W-10-002	Base	Option Period Nu	mber 3		Value of Wat	er to U.S.	. Moon.			
Contractor INDUSTRIAL ECONOMICS,	TNCORPORATED		y Section and pa . 5-8, El		agraph of Contract SOW					
Purpose: Work Assignment	ic romatine with more and approximation of white	Work Assignment (	200 11200		Period of Performand	:e				
Work Assignment A	Amendment [	Incrementa Fundin								
X Work Plan Approve			From 09/20/2	2012 ™	11812012					
Comments: The purpose of this action to October 24, 2012 for Option \$11,141.59 and 162.9 level of	Year 3 with an estim	ated cost of 🕧	o)(4)	iractor's Elxed fee		an budget da . ceiling of	ted			
Superfund	Ac	counting and Appro	priations Data	1		X	Non-Superfund			
SFO (Max 2)	Note: To report additional	accounting and appropr	ations date use	EPA Form 190	0-69A.					
	ropriation Budget Org/Code le (Max 6) (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (D	okars) (Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)			
1		1					_			
2										
3					· ·					
4										
.5										
		uthorized Work Assi	gnment Ceilin	_						
Contract Period: 11/19/2009 To 09/19/201	Cost/Fee: 4			LOE:						
This Action:							-			
							_			
Total:										
	N	/ork Plan / Cost Esti	mate Approva	als						
Contractor WP Dated: 10/24/201	2 Cost/Fee	\$11,141.59		LOE:	163					
Cumulative Approved:	Cost/Fee:	\$11,141.59		LOE	163					
Work Assignment Manager Name John	Powers			Bran	nch/Mail Code:					
				Pho	ne Number 202	564-5776				
(Signature)		(Date		FAX	Number: 202-56	54-C50C				
Project Officer Name Cheryl R. H	grown			Bran	ich/Mail Code:					
				Pho	ne Number: 202-	66-0940				
(Signature)	<u> </u>	(Date	<i>j</i>	FAX	Number:					
Other Agency Official Name			_	Brar	nch/Mail Code:					
				Pho	ne Number:					
(Signature)	1	(Date	j	FAX	Number:					
Contracting Official Name Stoffax N	Artiyan.	10.00			nch/Mail Code:					
			18)15	_	ne Number: 202	564-1987				
	<u>'</u>		<i>y</i> 7	- LAY	Mumber:					

Work Assignment Form, gwebForms v1 0)

EPA		mental Protection ngton, DC 20460 sssignment		,	Work Assignment No 3+37 Other		nent Number:				
Contract Number	Contract Period 7	/19/2009 To	09/19/	2014	Title of Work Assign	nent/SE Site Nam					
EP-W-10-002	Base	Option Period Nu		2011	4 Title of Work Assignment/SF Site Name Value of Water to U.S. Econ.						
Contractor	Dasc		fy Section and pa	ragraph of Cor		er co s.n	. ((.).1.				
INDUSTRIAL ECONOMICS, 1	INCORPORATED	2244 100110	. 5-8, E.								
Purpose. Work Assignment			Period of Performant	:e							
X Work Assignment A	imendment -										
		Incremental Fundir	<b>~</b>		From 09/20/2	2012 to 04	73072013				
Work Plan Approva		<del></del>	1,1011 03/20/	2012 10 04	/50/2015						
The purpose of this amendment to Work Assignment (WA) 3-37 is to revise the WA period of performance end date to April 30, 2013.											
Supertund	Acc	ounting and Appro	priations Data	1		X	Non-Superfund				
SFO (Max 2)  Note: To report additional accounting and appropriations date use EPA Form 1900-69A.											
与 (Max 6) (Max 4) Code	ropriation Budget Org/Code e (Max 6) (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Di	ollars) (Cents)	Site/Project (Max 8)	Cost Org/Code (Max /)				
1											
2					<b></b>						
3											
4:											
5					•						
	Аш	thorized Work Assi	ignment Ceilin	ġ							
Contract Period:	Cost/Fee:			LOE.							
11/19/2009 re 09/19/201 This Action:	4						-				
The Action.											
							-				
Total:	\A\r	ork Plan / Cost Esti	imata Angroya	ate							
Contractor WP Dated:	Cast/Fee:		mate Approve	LOE:							
Cumulative Approved	Cost/Fee:		~	LOE:							
Work Assignment Manager Name John	Powers			<b>⊢</b>	ch/Mail Code:	567 6776					
						564-5776					
(Signature)	2000 - 111	(Date	ı)		Number: 202 56	54C50C	31 31 3				
Project Officer Name Choryl R. B:	LOWIL		ch/Mail Code:	i wan							
					ne Number: 202-5	66-0940					
(Signature)		(Date	e)		Number:						
Other Agency Official Name				Bran	ich/Mail Code:						
				Pho	e Number:						
(Signature)	<del></del>	(Date	)		Number:						
Contracting Official Name Stefan M	a:tiyan	1	1 1.		ch/Mail Code:						
/ X			115/12	•	ne Number: 202-	564-1997					
(Signature)		/Oats		EAY	Number:						

Work Assignment Form (WepForms v1 0)

				U	nited S	States Environm Washin	ental Prote gton, DC 2		Agency		- 1	Nork Assi 3–37	gnment N	umber			
	EF	'Α	i			Work A	ssiann	nent					Other	X A	mendn	nent Number:	
						11011171	JUI 9					000002					
Contract N	Vumber				Contra	act Period 11/	19/200	9 To	09/19/2	2014	1	Title of Work Assignment/SF Site Name					
8P-W-1	0-00	2			Base		Option Pe		,		Value of Water to U.S. Econ.						
Contractor		-					27.10.42.20.20.00	Specify	y Section and par		aph of Contract SOW						
	TRIAI	E	CONOMI	CS, INC	DRPCF	CETAS	-	Pgs.	. 5-8, El	Leme:							
Purpose:		$\sqsubseteq$	Work Assi	gnment			Work Assig	gnment (	Close-Out		Period of Performance						
		X	Work Assi	gnment Amend	ment	L	Increment	al Fundia	ig		From 09/20/2012 To 04/30/2013						
Work Plan Approval												From (	19/20/	2012 (	0 04	/30/2013	
Task 10	pose and	Tas:	this amo k 11 to the cor	the WA St	: Work .atome	Assignment of Work.	(WA) 3-3 The cont	7 is t	lo increase r shall sub	the	ievel a work	of eff plan a	fort by ind bud:	188 how get esti	irs an imate	d to add in	
	Super	fund	÷			Acco	ounting and	Appro	priations Data	i.					Х	Non-Superfund	
		_			Note: To	report additional ad	counting and	appropri	iations date use l	EPA Fo	rm 1900-	69A.	100				
SFO (Max 2)																	
_	OGN lax 6)	E	ludgel/FY (Max 4)	Appropriat Code (Max							iod) inuc	ars)	(Cents)	Site/P (Max		Cost Org/Code (Max 7)	
1			•				-						:-				
2							_				104						
3																	
4																	
5			,			<u></u>											
				120		Auti	horized Wo	rk Assi	gnment Ceilin	g							
Contract Pr 1.1/19, This Action	/2009	Э Т	09/19		/Fee:						LOE:					-	
Total:				_													
						Wo	rk Plan / Co	ost Esti	mate Approva	ils							
Contractor						Cost/Fee:		2			LOE:						
Cumulative	Approve	od:	_			Cost/Fee;					LQE:			_			
Wark Assig	onment M	lanag	er Name	John Po	wers							h/Mail Co		F C A . C	000	700	
									_	_				564-57		-	
Project Off	ions Nam		(Signa		n			(Date)	)				#U9 _ 5U9 388	64-050	O		
Project Officer Name Cheryl R. Brown								ł	20030077220007	h/Mail Co	A-1-1-10	566-09	or c				
(Signature) (Date)								<u>.</u>			umber:	<u> </u>	300-09	*• U			
Other Age	леу Offic	ial Na		(0/6)				IDaie,	<del></del>		S. 17 SHOP 19	h/Mail Co	nde:		-		
										-		Number					
			(Signa	ture)				(Date)	)	<u> </u>		lumber:	-			_	
Contracting	g Official	Name		ap Mart	iyaq					1		h/Mail Co	de:				
		4	$\leq$ $\angle$	X,				$H_{J}$	129/20	أجرر	Phone	e Number	: 202-	-564-1	987		
			1//	$\rightarrow$		1	)		1/	—`I		lumber					

#### Statement of Work

Title: Technical Support to Stimulate and Promote Innovation in Science-based

Approaches for Estimating the Value of Water to the U.S. Economy

Contractor: Industrial Economics, Inc.

Contract: EP-W-10-002

Work Assignment: 3-37, Amendment 2

#### Period of Performance:

Phase 1: Date of issuance to November 18, 2011

Phase 2: November 19, 2011 to November 18, 2012

Date of issuance to September 19, 2013 April 30, 2013

Level of Effort: 188 Amendment

Phase 1: 750 hours

Phase 2: 1,700 hours Total: 2,450 hours

WA COR: John Powers

OW/WPS (4101M) Ph. (202) 564-5776 Fax (202) 564-0500 powers.john@epa.gov

Alt. WA COR: Joel Corona

OW/WPS (4101M) Ph. (202) 564-0006 Fax (202) 564-0500 corona.joel@epa.gov

#### **Contract Level COR:**

Cheryl R. Brown

OP (1805T)

Ph. (202) 566-0949 Fax (202) 566-3001

#### **BACKGROUND & PURPOSE**

There currently is no organized, science-based narrative on the economic value of water to the U.S. economy. A qualitative review of the literature provides some insights on the importance of water to certain sectors of the economy, such as tourism, farming and food production, fishing,

manufacturing, infrastructure, housing and energy, but the information tends to be incomplete or lacking in strategic insight.

As a consequence, EPA and others are unable to systematically and comprehensively analyze the value of water to the U.S. economy, resulting in potentially inefficient resource protection and management decisions. This project is intended to stimulate and promote innovation to fill this information gap. Furthermore, when combined with EPA research on the value of water in the U.S. from *nonmarket* consumption (e.g., nonuse values, recreation, etc.), this project will serve as a catalyst for integrating market and nonmarket "pricing" information that is critical to support decision-making at multiple scales (e.g., EPA, state, regional, watershed, local).

The purpose of this project is, therefore, to stimulate and promote awareness and innovations resulting in the enhanced capacity of analysts and decision-makers to evaluate the economic value of water and the contribution it makes to the U.S. economy over time. Key questions to address include the following:

- Given projected trends in population growth and composition, trends toward urbanization, shortages in critical infrastructure investment, global warming, and other strategic drivers of change, how does the availability of clean water affect patterns of economic and regional development in the U.S.?
- How does clean water create competitive advantages for the U.S. in the 21<sup>st</sup> Century global economy? In what sectors of the U.S. economy are these competitive advantages most strategically significant to the nation as a whole? What are the implications on regional economic development?
- How robust are these projections to strategic choices made by other nations, and how could these choices affect relative (comparative) advantages between the U.S. and its trading partners?
- What strategic choices must the U.S. consider to maximize the sustainable economic value generated by its water supplies in the 21<sup>st</sup> Century?

The project will be managed to integrate, coordinate, and share knowledge developed in two areas. First, the contractor will engage stakeholders and external experts to begin a dialogue on the value of clean water to the U.S. economy through development of a comprehensive, high-level and forward-looking narrative that informs current and future decision-makers, and engages the public, policy-makers, civic leaders, business leaders, water managers, and others in appreciating the contribution water makes to the nation's economic well-being. Second, EPA, with the support of the contractor, will conduct a technical analysis of the current economic and natural resource statistics, models, and methods available for valuing the contribution of water to the market economy, and identify innovations required to enhance its capacity to analyze the impacts of its regulations and policies on the U.S. economy.

The general workflow of the project is as follows:

#### Part I: Background Report

Purpose: To provide a consistent set of background information that (1) provides a
baseline understanding of the economic and natural resource statistics, methods and
models available describing, and for conducting analysis of, the value of water to the U.S.
economy, and (2) informs selection of strategic topics and experts for further inquiry in
Part II of the project.

#### Part II: Expert Papers

• <u>Purpose</u>: To engage and provide technical assistance to experts on specific strategic topics identified in Part I to gain greater insight on current values of water to the U.S. economy, current analytic capabilities, and innovations required to enhance technical analysis capabilities.

#### Part III: Workshop

• <u>Purpose</u>: To present the findings from Parts I and II to a group of diverse stakeholders, engage the experts and stakeholders in a discussion about the findings and implications, and identify innovations required to enhance technical analysis capabilities.

#### Part IV: Synthesis Reports

• Purpose: To synthesize the findings of Parts I-IV into documents for non-technical and technical audiences. The synthesis for non-technical audiences shall focus on the findings on the value of water to the U.S. economy, whereas the synthesis for technical audiences shall focus on analytic issues, including innovations required to enhance EPA's capacity to integrate market and nonmarket "pricing" information critical to support decision-making at multiple scales (e.g., EPA, state, regional, watershed, local). One or both synthesis reports may be submitted for formal peer review.

Note that the duration of this project will extend into a new contract period of performance beginning November 19, 2011. The initial work assignment (Phase 1 of the project) will focus on Parts I and II, whereas the follow-up work assignment (Phase 2) will continue this work through completion of Part IV. A General Schedule of Deliverables is included below showing the anticipated work flow between the Phase 1 and Phase 2 work assignments. The products developed under Phase 1 are essential to completion of the work products developed under Phase 2 in the follow-up work assignment.

Note that EPA may consult with its Science Advisor Board (SAB) on this project. A task is included in this work assignment for the contractor to provide technical assistance to the WA COR if required, and a column is included in the General Schedule of Deliverables describing the potential scope and timing of consultation. The purpose of this action is to add Task 10 and 11 as provided below.

Contractor personnel shall at all times identify themselves as contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

#### TASKS & DELIVERABLES

The WA COR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the WA COR's comments.

The contractor shall not duplicate work performed in the previous work assignment(s).

## Phase 1: Task 1 – Prepare Workplan and QAPP, and Administer the Work Assignment – COMPLETED

The contractor shall prepare a Workplan for Phase 1 and Phase 2 within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a staffing plan, and a detailed cost estimate by task. The WA COR, Contract Level COR and the CO will review the workplan. However, only the CO can approve/disapprove the workplan. The contractor shall prepare a revised workplan incorporating the CO's comments, if required.

The contractor shall prepare a written Quality Assurance Project Plan (QAPP) and submit QA Reports with monthly progress reports and with the Final Report.

The contractor shall also identify how it will administer the work assignment.

#### Deliverables:

- 1A. Workplan due within 15 calendar days of receipt of the work assignment.
- 1B. Revised workplan due within 7 calendar days of receipt of comments from the Contracting Officer, if required.
- 1C. QAPP due within 15 calendar days of receipt of the work assignment.
- 1D. Revised QAPP due within 7 calendar days of receipt of comments from the **WA COR**, if required.
- 1E. Monthly QA Reports due with monthly progress reports and with the Final Report.

## Phase 1: Task 2 – Begin Background Report (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall write a background report that provides a consistent set of background information that (1) provides a baseline understanding of the economic and natural resource statistics, methods and models available describing, and for conducting analysis of, the value of

water to the U.S. economy, and (2) informs selection of strategic topics and experts for further inquiry in Phase 2 of the project. To do this, the contractor shall review relevant literature, consult with experts, and analyze economic and natural resource statistics.

The report shall be written in four steps — Outline, Draft 1, Draft 2, and Final. The Outline and Draft 1 deliverables will be due under this work assignment, with specific due dates determined through technical direction. The Draft 2 and Final deliverables are addressed in Phase 2: Task 5 — Complete Background Report, described below.

#### Deliverables:

- 2A. Background Report Outline due date determined by technical direction, but expected in October 2011, as indicated in the General Schedule of Deliverables.
- 2B. Background Report Draft 1 due date determined by technical direction, but expected in November 2011, as indicated in the General Schedule of Deliverables.

### Phase 1: Task 3 – Begin Expert Papers (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall write approximately ten (10) expert-level papers on specific strategic topics identified in Phase 1: Task 2 to gain greater insight on current values of water to the U.S. economy, current analytic capabilities, and innovations required to enhance critical technical analysis capabilities.

The process for identifying the topics and experts shall be based on an objective and scientifically-based assessment of the deliverables and knowledge gained in Phase 1: Task 2. Specific sub-tasks for this task include (1) developing a Draft Topics List describing key focal areas for expert research and analysis; and (2) developing Draft Charge Questions to address in expert-level papers (may be general or specific to a topic). Additional requirements, including deliverable due dates, will be issued through technical direction.

#### Deliverables:

- 2A. Draft Topics List due date determined by technical direction, but expected in October 2011, as indicated in the General Schedule of Deliverables.
- 2B. Draft Charge Questions due date determined by technical direction, but expected in November 2011, as indicated in the General Schedule of Deliverables.

## Phase 1: Task 4 – Support for SAB Consultation (Contract SOW Ref. Pg. 5-8, Element 1): COMPLETED

The contractor shall provide the WA COR with technical support for consulting with EPA's Science Advisory Board on this project. Specific activities may include developing presentation materials and charge questions, participating in technical discussions, and taking notes. Travel

(day-trip; no overnight) to Washington, DC may be required for one or two individuals. Specific deliverables and due dates will be determined through technical direction.

# Phase 2: Task 5 – Complete Background Report (Contract SOW Ref. Pg. 5-8, Element 1) – COMPLETED

The contractor shall complete the background report initiated in Phase 1: Task 2. Specific deliverables under this phase of the work assignment include Draft 2 and Final report, with specific due dates to be determined through technical direction. The Background Report may be submitted for peer review. As described in the General Schedule of Deliverables (below), it is expected that Draft 2 will be due in January 2012, and that the Final report will be due in May 2012.

#### Deliverables:

- 5A. Background Report Draft 2 due date determined by technical direction, but expected in January 2012, as indicated in the General Schedule of Deliverables
- 5B. Background Report Final due date determined by technical direction, but expected in May 2012, as indicated in the General Schedule of Deliverables.

## Phase 2: Task 6 – Complete Expert Papers (Contract SOW Ref. Pg. 5-8, Element 1) -- COMPLETED

The contractor shall complete the expert papers initiated in Phase 1: Task 3 by researching, writing, and editing draft and final expert papers. The expert papers may be submitted for peer review. Specific deliverable due dates will also be determined through technical direction, but as described in the General Schedule of Deliverables, it is expected that the Draft Expert Papers will be due in March 2012, and Final Expert papers will be due in May 2012.

#### Deliverables:

- 6A. Draft Expert Papers due date determined by technical direction, but expected in March 2012, as indicated in the General Schedule of Deliverables.
- 6B. Final Expert Papers due date determined by technical direction, but expected in May 2012, as indicated in the General Schedule of Deliverables.

#### Phase 2: Task 7 – Workshop (Contract SOW Ref. Pg. 5-8, Element 1) (INCOMPLETE)

The contractor shall organize a workshop for approximately 100-250 attendees to engage experts and a diverse group of stakeholders in a discussion about the findings and implications of the Background Report and Expert Papers, and to identify innovations required to enhance technical analysis capabilities. The workshop shall be organized to provide a comprehensive, high-level and forward-looking narrative that informs current and future decision-makers, and engages the

public, policy-makers, civic leaders, business leaders, water managers, and others in appreciating the contribution water makes to the nation's economic well-being.

The contractor shall contribute to the planning of the workshop and agenda, develop PowerPoint presentations, give presentations, participate in discussions, take notes, and write draft and final workshop summaries. The contractor may be required to make space arrangements. Travel (3 days, 2 nights for 1-2 individuals) to Washington, DC or another location (TBD) for the workshop will be required.

As described in the General Schedule of Deliverables, it is expected that the Workshop will take place in June-August 2012 with planning activities taking place in January-May 2012. Draft and final workshop summaries are expected to be due no later than September and October 2012, respectively. Specific deliverables and due dates will be determined through technical direction.

## Phase 2: Task 8 – Synthesis Reports (Contract SOW Ref. Pg. 5-8, Element 1) (INCOMPLETE)

The contractor shall synthesize the findings of Tasks 2-7 into two documents for non-technical and technical audiences. The synthesis for non-technical audiences shall focus on the findings on the value of water to the U.S. economy, whereas the synthesis for technical audiences shall focus on analytic issues, including innovations required to enhance EPA's capacity to integrate market and nonmarket "pricing" information critical to support decision-making at multiple scales (e.g., EPA, state, regional, watershed, local). One or both synthesis reports may be submitted for formal peer review.

The process for writing the synthesis reports shall be based on an objective and scientifically-based assessment of the deliverables produced under Tasks 2-7. Deliverables will include draft and final outlines, and draft and final reports for both syntheses. As described in the General Schedule of Deliverables (below), it is expected that the Draft Outlines will be due in May-June 2012, Final Outlines will be due in August 2012, Draft Reports will be due in September 2012, and Final Reports will be due in October 2012. Specific deliverables and due dates will be determined through technical direction.

#### Deliverables: (INCOMPLETE)

- 8A. Draft Outlines for Synthesis Reports due date determined by technical direction, but expected in May-June 2012, as indicated in the General Schedule of Deliverables.
- 8B. Final Outlines for Synthesis Reports due date determined by technical direction, but expected in August 2012, as indicated in the General Schedule of Deliverables.
- 8C. Draft Synthesis Reports due date determined by technical direction, but expected in September 2012, as indicated in the General Schedule of Deliverables.

8D. Draft Synthesis Reports due date determined by technical direction, but expected in September 2012, as indicated in the General Schedule of Deliverables.

# Phase 2: Task 9 – Support for SAB Consultation (Contract SOW Ref. Pg. 5-8, Element 1) (INCOMPLETE)

The contractor shall provide the WA COR with technical support for consulting with EPA's Science Advisory Board on this project. Specific activities may include developing presentation materials and charge questions, participating in technical discussions, and taking notes. Travel (day-trip; no overnight) to Washington, DC may be required for one or two individuals. Specific deliverables and due dates will be determined through technical direction.

# Phase 3: Task 10 – Attend Public Symposium in Washington, DC (Contract SOW Ref. Pg. 5-8, Element 1) (New Task)

The contractor shall send up to two of the study authors to *The Importance of Water to the U.S. Economy* public symposium being held from 1-5 pm at American University in Washington, DC on December 4, 2012. It is expected that this trip will involve airfare and per diem, but not overnight accommodations. Due to space limitations, it is expected that only one of the study authors will be able to attend, but this will be confirmed by the WACOR through technical direction.

While at the public symposium, the contractor shall answer questions and participate in discussions. No presentation is necessary.

# Phase 3: Task 11 – Revise documents based on feedback from the public and SAB (Contract SOW Ref. Pg. 5-8, Element 1) (New Task)

The contractor shall revise documents (e.g., Background Report, Synthesis Report) produced under this work assignment as directed by the WACOR. Revisions are expected in response to public review and SAB review. Specific deliverables and due dates will be determined through technical direction.

General Schedule of Deliverables

	Part I	Part II	Part III	Part IV	Potential SAB
	Background Report	Expert Papers	Workshop	Synthesis Reports	Consultation
<i>PROJECT</i>	TPHASE 1 – this work a	ssignment (through Nov I	8, 2011)		
Sep '11					Provide project
Oct '11	Outline	Draft topics list			overview & seek advice on
Nov '11	Draft 1	Draft charge questions			engaging experts
PROJEC.	T PHASE 2 follow-on v	vork assignment (beginnin	g Nov 19, 2011 through i	Vov 18, 2012)	-
Dec '11		Final topics list Final charge questions Define scope of expert papers			
Jan '12	Draft 2	Provide RA support			Share & discuss Draft
Feb '12	1,,,,,,,,	for experts			2 Background Report
Mar '12		Draft Papers	Workshop planning		
Apr '12					
May '12	Final	Final		Draft Outlines	Share & discuss Final
Jun '12		E			Expert Papers
Jul '12	<b></b>	,	··► Workshop		
Aug '12				Final Outlines	
Sep '12			Draft workshop summary due	Draft Reports	
Oct '12			Final workshop summary due	Final Reports	Present & discuss Final Workshop
Nov '12					Summary and Final Synthesis Reports

Major Deliverables:

- Final Background Report (Phase I) May '12
- Final Expert Papers (Phase II) May '12
- Workshop (Phase III) Jun-Aug '12
- Final Workshop Summary (Phase III) Oct '12
- Final Synthesis Reports (Phase IV) Oct '12
- Potential consultations with SAB Sep-Nov '11, Jan-Feb '12, May-Jun '12, Oct-Nov '12

EPA	,	nental Protection of gton, DC 20460			Work Assignment N		nent Number:				
Contract Number EP-W-10-002	517 (pr. 19.0.)	/19/2009 To	09/19/2	2014	Title of Work Assign						
Contractor	Base	Option Period Null Specific		ragraph of Cor	Value of Water to U.S. Econ.						
INDUSTRIAL ECONOMICS, I	NCORPORATED		. 5-8, El								
Purpose: Work Assignment Work Assignment An X Work Plan Approval		Work Assignment C			Period of Performal	nce /2012 To 04	/30/2013				
Comments:  The purpose of this action under Work Assignment (WA) 3-37 is to approve the contractor's budget estimate and work plan dated November 7, 2012 for an estimated cost of $(b)(4)$ fixed fee of $(b)(4)$ for a total ceiling of \$28,861.45, and 210.5 level of effort hours.											
Superfund Accounting and Appropriations Data X Non-Superfund											
SFO (Max 2)  DCN BudgevFY Appro (Max 6) (Max 4) Code	EPA Form 190 Amount (Da		Site/Project (Max 8}	Cost Org/Code (Max 7)							
1							_				
2											
3					•						
4					-						
5					<b>4</b>						
	Auti	norized Work Assi	gnment Ceilin	g		1					
Contract Period: 11/19/2009 To 09/19/2014 This Action:	Cost/Fee: 1			LOE:			-				
Total:							-				
	Wo	rk Plan / Cost Esti	mate Approva	ls							
Contractor WP Dated: 11/07/2012	Cost/Fee: \$	29,861.45		LOE:	211						
Cumulative Approved.	Cost/Fee: \$	40,003.04		LQE:	308						
Work Assignment Manager Name John	Powers			Brar	ich/Mail Code:						
				Pho	ne Number 202-	-564-5776					
(Signature)		(Date)	)	- FAX	Number: 202-5	64-0500					
Project Officer Name Cheryl R. Br	own .			Bran	ich/Mail Code:						
				Pho	ne Number: 202-	566-0940					
(Signature)		FAX	Number:								
Other Agency Official Name	Bran	ich/Mail Code:									
	Pho	ne Number:									
(Signature)	$\overline{}$	FAX	Number:								
Contracting Official Name Stefan Ma	irtiyan		ich/Mail Code:	i							
$\langle \gamma \rangle \langle \gamma \rangle$		11.	129 120	DIA Pho	ne Number: 202	-564-1987					
(Signature)		(Date)	1	FAX	Number:						
Work Assignment Form. (WebForms v1.0)	<u> </u>										

	EF	PΑ	U	nited States	Washin	nental Proti gton, DC 2 <b>ssignn</b>	0460			Work Assign	oment Nu		nent Number:		
Contra	act Number			Contract Per	od 11/	/19/200	9 To	09/19/	2014	. 4 Title of Work Assignment/SF Site Name					
EP-	W-10-00	2		Base		Option Pe	riod Nui	mber 3		Value of Water to U.S. Econ.					
Contra 1ND		ECONOMI	CS, INC	ORPORATE:	)	1		y Section and pa	(5.0)						
Purpose: Work Assignment Wark Assignment Clase-Out										Period of F	erformand	e			
		_	gnment Amend	lment	<u> </u>	Increment	-			re rom resser Am ro					
X Work Plan Approval From 09/20/2012 To 04/30											/30/2013				
Comments:  The purpose of this action under Work Assignment 3-37 is to approve the contractor's work p) an and budget estimate dated December 6, 2012 for 188 hours level of effort, $(b)(4)$ in estimated costs, $(b)(4)$ in fixed fee with a ceiling of \$21,088.26.															
Superfund Accounting and Appropriations Dat												Х	Non-Superfund		
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.  SFO  (Mex 2)															
Line	DCN (Max 6)	Budget/FY (Max 4)	Approprial Code (Ma		Drg/Code lax 7)	Program F (Max		Object Class (Max 4)	Amount (D	orlars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)		
1										<del></del> +					
2	***														
3			<u> </u>												
4															
5			<u> </u>			•		<u>                                     </u>	,			<del></del>			
Pt-					Aut	horized Wo	rk Assi	ignment Ceilìr				:			
STEEDS STATE OF		то 09/19		VFee:					LQE:				-		
I Ligit					Wo	rk Plan / C	ost Esti	imate Approv	als						
Contr	actor WP Date	ed: 12/06	72012	Co	st/Fee: \$	21,088.	26		LOE	189					
Cumu	lative Approvi	9 <b>d</b> ;		Co	st/Fee: \$	61,091	.3C		LOE	496					
Wark.	Assignment M	lanager Name	John Po	wers						nch/Mail Cod		564-5776			
		/0:	stren!				(O+1)	.1		Number: 2			<u></u>		
Proin	et Officer Nam	(Signa B Chery		Jr.			(Date	*)		nch/Mail Cod		34-0300			
Project Officer Name Cheryl R. Brown											566-0940				
(Signature) (Date)									Number:	202	000 00 40	-			
Other	Agency Offic							<u> </u>	0.0	nch/Mail Cod	de:				
									80.41	ne Number:					
		(Signa	iture)				(Date	······································		Number:		•			
Contr	acting Officia		fan Marft	iyan						nch/Mail Coo	de:				
	3.	~ <del>\</del> \\		1			) ]	10/12	Pho	ne Number:	20 <b>2</b> -	564-1987	141		
	-	(Sione	(Mrc)	<del>-\</del>			(Date	<del>,,~/-~</del>	FAX	( Number.					

Work Assignment Form. (WeldEdrms v1.10)

		PA	U	nited State	s Environn Washin	nental Proteigton, DC 2		Agency		Work Assig	anment Nu	umber				
	Er	- A		V	Vork A	ssignn	nent			Other X Amondment Number: 000003						
Cont	ract Number	<del></del>		Contract P	eriod 11,	/19/200:	9 To	09/19/	2014	4 Title of Work Assignment/SF Site Name						
EP-	W-10-00	)2		Base		Option Pe	ried Nu	mber 3		Value of Water to U.S. Econ.						
Cont	ractor						_	y Section and pa	ragraph of Co							
INI	DUSTRIA:	L ECONOMI	CS, INC	OR PORAT	ΞD		Pgs,	, 5-8, E.	Lements	emonts						
Purp	ose	Work Ass	gement			Work Assi	gnment (	Close-Qut		Period of Performance						
		=	gnment Amena	ment		Incrementa	5.									
		Work Plan	_		_			7		From ()	9/20/:	2012 To 06	/30/2013			
The	Comments:  The purpose of this amendment to Work Assignment (WA) 3-37 is to extend the WA period of performance and date to June 50, XC13 ay no additional cost to the Government and to change the primary WA Contracting Officer's Representative to to Joel Corona.															
	Superfund Accounting and Appropriations Data X Non-Superfund															
<u> </u>		<u></u>		Note To repo	rt addit onal a	ccounting and	appropri	iations date use	EPA Form 190	00-69A.						
Note To report additional accounting and appropriations date use EPA Form 1900-69A.  SFO  (Max 2)  DCN Budget/FY Appropriation Budget Org/Code Program Element Object Class Amount (Dollars) (Cents) Site/Project Cost Org/C											Cost Org/Code					
1 Line	(Max 6)	(Max 4)	Code (Ma		(Max /)	(Max	9)	(Max 4)				(Max 8)	(Max 7)			
┞╼┿╸		<u> </u>									•	<u>.                                    </u>				
3		1	<u> </u>										-			
		<u> </u>			F 0							1				
4			<u> </u>	_							+					
5					Λ	horized Mr	rk Anni	I gnment Ceilir	<u> </u>							
Cont	ract Period:		Cos	VFee:	Aut	HOHZEG VVC	. K MB31	giiiiieiit Ociiii	LOE			·				
		9 To 09/1		ui ee.												
ſhis	Action:												-			
<u> </u>	<del></del>												-			
Tota	l.															
					Wo	ork Plan / C	ost Esti	imate Approv	als							
Çent	ractor WP Da	led:			Cost/Fee.			- <del></del> -:	LOE	1						
Cum	ulative Approv	red			Cast/Fee				LOS	:	10					
Work	: Assignment I	Manager Name	Joel Co	rona				2.5	Bra	nch/Mail Co	ode:					
									Pho	ne Number	202	564-0006				
	1	(Signa	eture)				(Date	·j	FAX	K Number:						
Proje	ect Officer Nar	me Cheryl	R. Brow	TI.					Вта	nch/Mail Co	ode:					
									Pho	ne Number	: 202	566-0940				
		(Signa	eture;				(Date	)	FA:	Number:						
O!hi	ar Agency Offi	cial Name							Bra	nch/Mail Co	de:					
									Pho	one Number	N .					
	1	(Signa	ature)	_			(Date	?)	— FA	X Number:	,		38			
Cor	tracting Officia	Name Sije	Nan Mark	Liyan	\_	-			Вга	nch/Mail Co	ode:					
	_	<b>-</b>	$\times$	_	1		4	118/12	Pho	one Number	202-	-564 1987				
	<u> </u>	(Signa	ityre)		<u> </u>		(Date	;	FA	X Number:						
Wor	k Assignment	Form. (WebFort)		(	7											